

**Friday 17 January 2020**

Morning (Time: 2 hours)

Paper Reference **31761H**

## **Information Technology**

### **Unit 2: Creating Systems to Manage Information**

**Part B**

**You must have:**

activity6.rtf, activity7.rtf, partB\_database.accdb or partB\_database.mdb

#### **Instructions**

- **Part A** and **Part B** contain the material for the completion of the set tasks under supervised conditions.
- There are 40 marks for **Part A** and 26 marks for **Part B**, giving a total mark for the set tasks of 66.
- **Part A** and **Part B** are specific to each series and this material must be issued only to learners who have been entered to take the tasks in the specified series.
- Learners **must only** have access to **Part B** during this examination session.
- This booklet should be kept securely until the start of the 2-hour supervised assessment period.
- **Part A** materials **must not** be accessed during the completion of **Part B**.
- **Part A** and **Part B** should be submitted together for each learner.
- This booklet should not be returned to Pearson.
- Answer **all** activities.

#### **Information**

- The total mark for this paper is 26.

*Turn over* ►



## **Instructions to Invigilators**

This paper must be read in conjunction with the unit information in the specification and the *BTEC Nationals Instructions for Conducting External Assessments (ICEA)* document. See the Pearson website for details.

Refer carefully to the instructions in this task booklet and the *BTEC Nationals Instructions for Conducting External Assessments (ICEA)* document to ensure that the assessment is supervised correctly.

The 2-hour **Part B** set task must be carried out under examination conditions.

The database and electronic templates for Activities 6 and 7 are available on the website for centres to download for candidate use.

Learners must complete this task on a computer using the templates provided and appropriate software. All work must be saved as PDF documents for submission.

Invigilators may clarify the wording that appears in this task but cannot provide any guidance in completion of the task.

Invigilators should note that they are responsible for maintaining security and for reporting issues to Pearson.

### **Maintaining Security**

- Learners must not bring anything into the examination environment or take anything out.
- Centres are responsible for putting in place appropriate checks to ensure that only permitted material is introduced into the examination environment.
- Internet access is **not** permitted.
- Learner's work must be regularly backed up. Learners should save their work to their folder using the naming instructions indicated in each activity.
- During any permitted break, and at the end of the examination, materials must be kept securely, and no items removed from the supervised environment.
- Learners can only access their work under supervision.
- User areas must only be accessible during the examination session and only by the individual learners.
- Any materials being used by learners must be collected in at the end of the examination.
- Following completion of **Part B** of the set task, all materials must be retained securely for submission to Pearson.
- **Part A** materials must not be accessed during the completion of **Part B**.

## **Outcomes for Submission**

Each learner must create a folder to submit their work.

The folder should be named according to the following naming convention:

**[Centre #]\_[Registration number #]\_[surname]\_[first letter of first name]\_PartB**

Example: Joshua Smith with registration number F180542 at centre 12345 would have a folder titled

12345\_F180542\_Smith\_J\_PartB

Each learner will need to submit 3 PDF documents and their final database within their folder.

The 3 PDF documents should use these file names:

**Activity 6:** activity6\_[Registration number #]\_[surname]\_[first letter of first name]

**Activity 7:** activity7\_[Registration number #]\_[surname]\_[first letter of first name]

**Activity 8:** activity8\_[Registration number #]\_[surname]\_[first letter of first name]

An authentication sheet must be completed by each learner and submitted with the final outcomes.

The work should be submitted no later than 21 January 2020.

## **Instructions for Learners**

Read the set task information carefully.

Plan your time carefully to allow for the preparation and completion of all the activities.

Internet access is **not** allowed.

You will complete this set task under supervision and your work will be kept securely at all times.

You must work independently throughout the examination and must not share your work with other learners.

Your invigilator may clarify the wording that appears in this task but cannot provide any guidance in completion of the task.

**Part A** materials **must not** be accessed during the completion of **Part B**.

### **Outcomes for Submission**

You must create a folder to submit your work.

The folder should be named according to the following naming convention:

**[Centre #]\_[Registration number #]\_[surname]\_[first letter of first name]\_PartB**

Example: Joshua Smith with registration number F180542 at centre 12345 would have a folder titled

12345\_F180542\_Smith\_J\_PartB

You will need to submit 3 PDF documents and your final database within this folder.

The 3 PDF documents should use these file names:

**Activity 6:** activity6\_[Registration number #]\_[surname]\_[first letter of first name]

**Activity 7:** activity7\_[Registration number #]\_[surname]\_[first letter of first name]

**Activity 8:** activity8\_[Registration number #]\_[surname]\_[first letter of first name]

You must complete an authentication sheet before you hand your work into your invigilator.

## **Part B Set Task Brief**

**You are advised to spend 10 minutes reading the Task Scenario and the activities you are to complete.**

**You may make notes and/or highlight information to use in the completion of the documents you need to produce for your task.**

### **Task Scenario**

'Rockhill Music Festival' has partially developed a database that will eventually be merged with the database you created in **Part A**.

The festival needs staff to manage the event, for example bartenders.

There must be enough staff to manage both days of the festival. Some staff can work on the Friday, some on the Saturday and some on both days.

The database will record information about the staff and management of the event.

## Part B Set Task

**You must complete ALL activities within the set task.**

**Produce your documents using a computer.**

**Save your documents in your folder ready for submission using the formats and naming conventions indicated.**

### **Activity 6: Forms (1 hour 10 minutes)**

#### **Note**

- The structure of the tables provided should not be changed in any way, e.g. do not add validation, do not change data types.
- You will **only** be required to use tblStaff and tblJobRole.

(a) Create an efficient interface that will facilitate database input by producing:

(i) an input form to add a member of staff.

- The form should be ready for data entry.
- The staff member's surname must be present.
- The user should be able to select the staff member's job role.
- The user should be able to select the staff member's availability.
- Valid data should be appended to the staff table and a save message should display.
- A suitable error message should appear where invalid data has been used.

(ii) an input form to check staff availability.

- The form should **not** include validation for any fields.
- The form should **not** include an automated routine to save the data.
- The user should be able to select the job role.
- The user should be able to select either Friday or Saturday as the day they want to check availability for.
- After the job role and day have been selected the form must display:
  - a list of the names of staff members who are available
  - the total number of staff available for the job role and day.

Evidence your interface as screenprints using the given **activity6.rtf** template.

Your screenprints must show:

- the **DESIGN** view and **FORM** view of all the forms you have created
- the **DESIGN** view of any queries you have created and used with the forms including fields and criteria
- the **DATASHEET** view of any queries you have created and used with the forms
- details of any calculations, validation and macros/code you have created and used with the forms.

Ensure sufficient information is provided to allow a competent third party to maintain the database.

Save the evidence of your interface as a PDF in your folder for submission as  
**activity6\_[Registration number #]\_[surname]\_[first letter of first name]**

You are advised to spend 1 hour and 10 minutes on this activity.

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**(Total for Activity 6 = 14 marks)**

### **Activity 7: Interface testing (20 minutes)**

Test the interface of your relational database using appropriate test data (normal, erroneous and extreme as appropriate).

You must provide evidence of **form level** testing that proves:

1. the user cannot select an invalid job role on the input form that adds a member of staff
2. the user cannot select invalid availability on the input form that adds a member of staff
3. a record will not save in the staff table without a staff member's forename
4. a record will save in the staff table if the staff member's details are present and valid
5. the correct list of staff members displays when the job role is 'Bartender' and the availability is 'Friday'
6. the correct total number of staff displays when the job role is 'Steward' and the availability is 'Saturday'.

Complete the test log to show how you have tested your input forms using the given **activity7.rtf** template.

Save your test log as a PDF in your folder for submission as  
**activity7\_[Registration number #]\_[surname]\_[first letter of first name]**

You are advised to spend 20 minutes on this activity.

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**(Total for Activity 7 = 6 marks)**

### **Activity 8: Interface evaluation (20 minutes)**

Evaluate your interface.

You should consider

- the quality, performance and usability of the interface you have created in terms of how well it ensures:
  - the user cannot select an invalid job role
  - the user cannot select invalid availability
  - a record will not save in the staff table without a staff member's forename
  - a record will save in the staff table if the staff member's details are present and valid
  - the correct list of staff members displays when the job role is 'Bartender' and the availability is 'Friday'
  - the correct total number of staff displays when the job is 'Steward' and the availability is 'Saturday'.

Save your evaluation as a PDF in your folder for submission as

**activity8\_[Registration number #]\_[surname]\_[first letter of first name]**

You are advised to spend 20 minutes on this activity.

**(Total for Activity 8 = 6 marks)**

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**TOTAL FOR PART B = 26 MARKS**